

ABSTRACT

A high throughput chemical mechanical polishing process is disclosed. A substrate having thereon a top bulk metal layer and a lower barrier layer is prepared. The top bulk metal layer is polished at a substantial constant removal rate to expose the barrier layer by utilizing a first platen and first slurry being selective to the barrier layer. The exposed barrier layer is then polished by using a second platen and second slurry. The first slurry has a copper to barrier polishing selectivity of greater than 30.